

National Park Service

Submerged Resources Center



EXPERIENCE
YOUR
AMERICA

The Ecology of Cultural Resources: Issues and Impacts Related to Submerged and Emergent Cultural Resources at Lake Mead National Recreation Area

August 14, 2014

Dave Conlin
Submerged Resources Center

National Park Service

Submerged Resources Center



National Reservoir Inundation Study 1976-1980



EXPERIENCE
YOUR
AMERICA

National Park Service

Submerged Resources Center



St. Thomas



Lost City



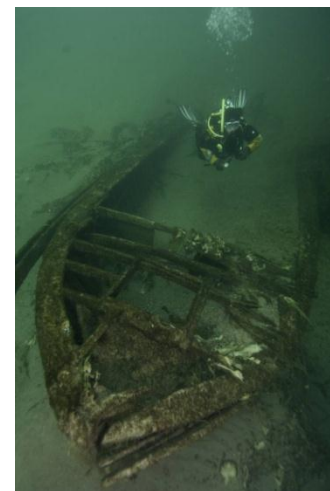
Aggregate Sorting Facility



Landing Craft



Crane Barge



Winch Boat

EXPERIENCE
YOUR
AMERICA

National Park Service

Submerged Resources Center



Pueblo Grande de Nevada – “Lost City” 300 BC-1150 AD



Pit House Foundation



Woven Bag- Basketmaker



Early Puebloan Pottery



Collection from Burial
in Pit House

National Park Service

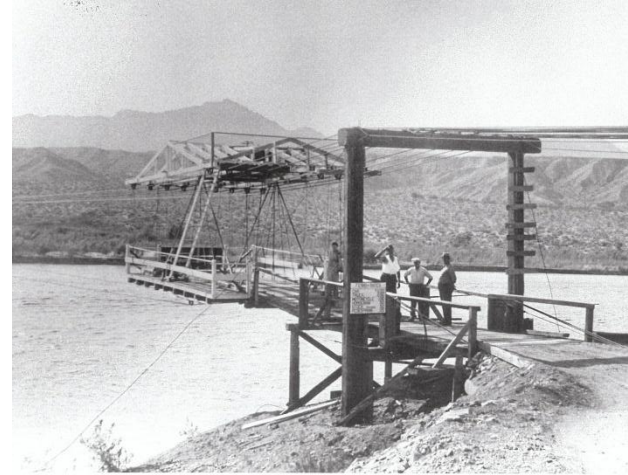
Submerged Resources Center



Settlement along the Colorado River 1500s-1930s



Mining Equipment along the Colorado River



Aerial Ferry near Cottonwood



Stamp Mill in Eldorado Canyon



Quartette Mining Co. Railroad

EXPERIENCE
YOUR
AMERICA

National Park Service

Submerged Resources Center



EXPERIENCE
YOUR
AMERICA



Aerial Ferry near Cottonwood

National Park Service

Submerged Resources Center



EXPERIENCE
YOUR
AMERICA

St. Thomas- Mormon Settlement 1865-1938



Hotel in St. Thomas 1936



Mormon Canals c. 1948



St. Thomas as Lake Mead Waters Rise



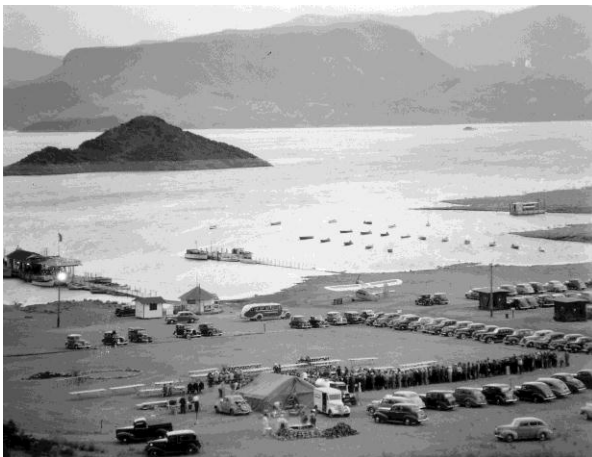
St. Thomas as Lake Mead Waters Rise

National Park Service

Submerged Resources Center



Evolution of Use to Include Recreation 1938-1941



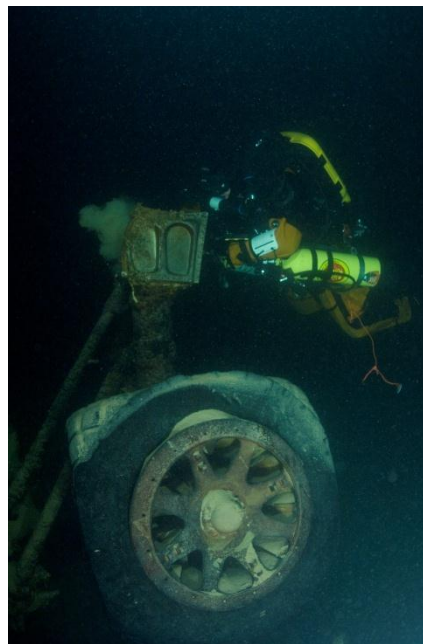
EXPERIENCE
YOUR
AMERICA

National Park Service

Submerged Resources Center



Railroad Used During Dam Construction



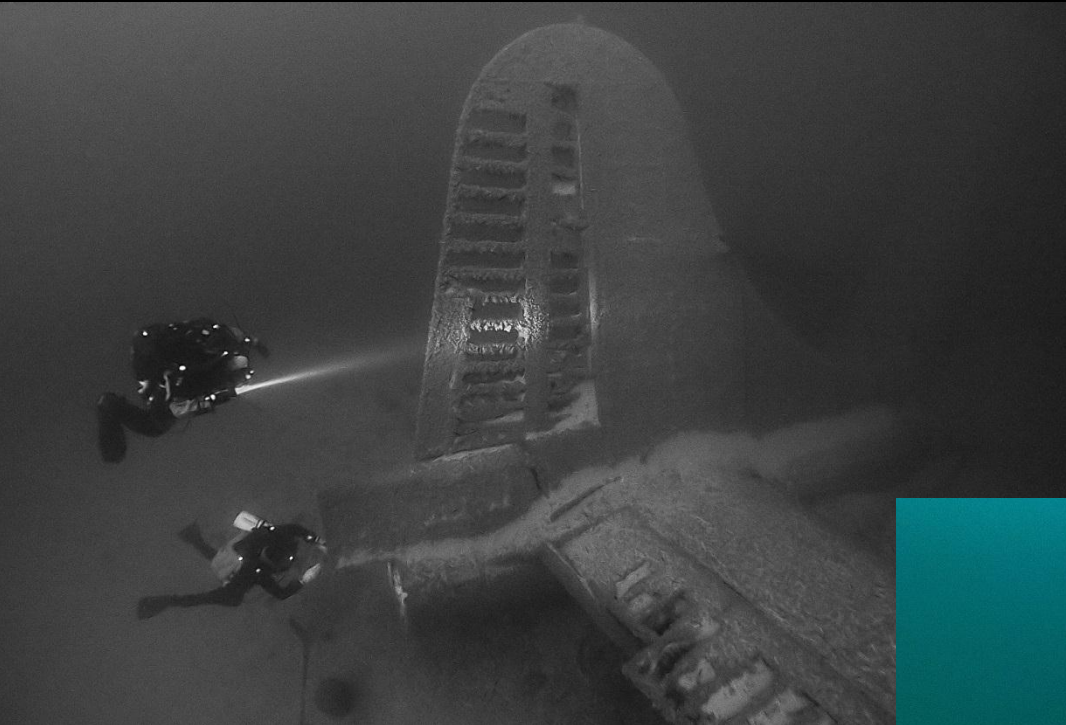
Crashed PBX Catalina
Seaplane



Modern Fire Pit from Recent Visitors

National Park Service

Submerged Resources Center



B-29 in Overton Arm

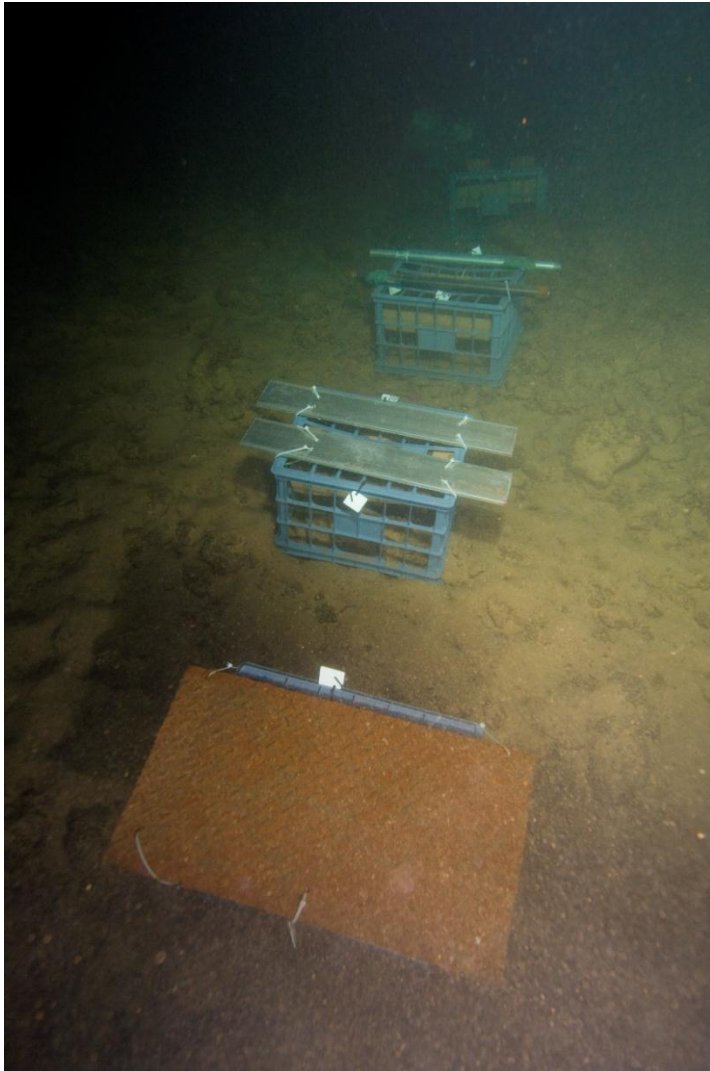


National Park Service

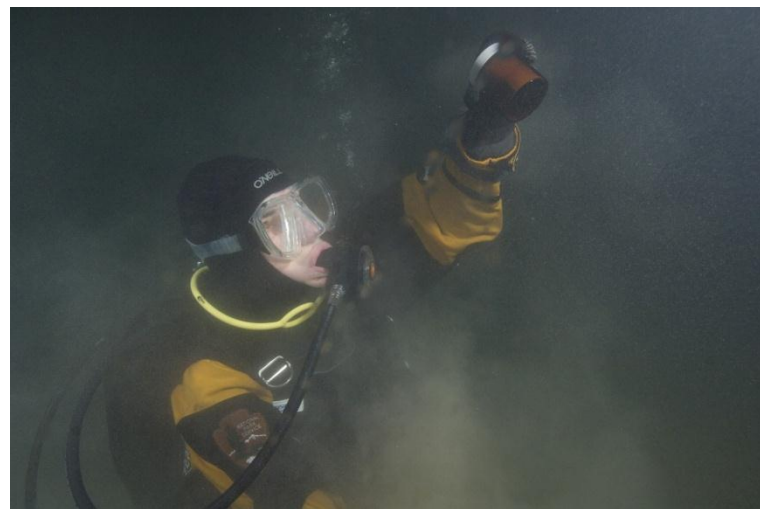
Submerged Resources Center



EXPERIENCE
YOUR
AMERICA



Substrates



Taking Samples

National Park Service

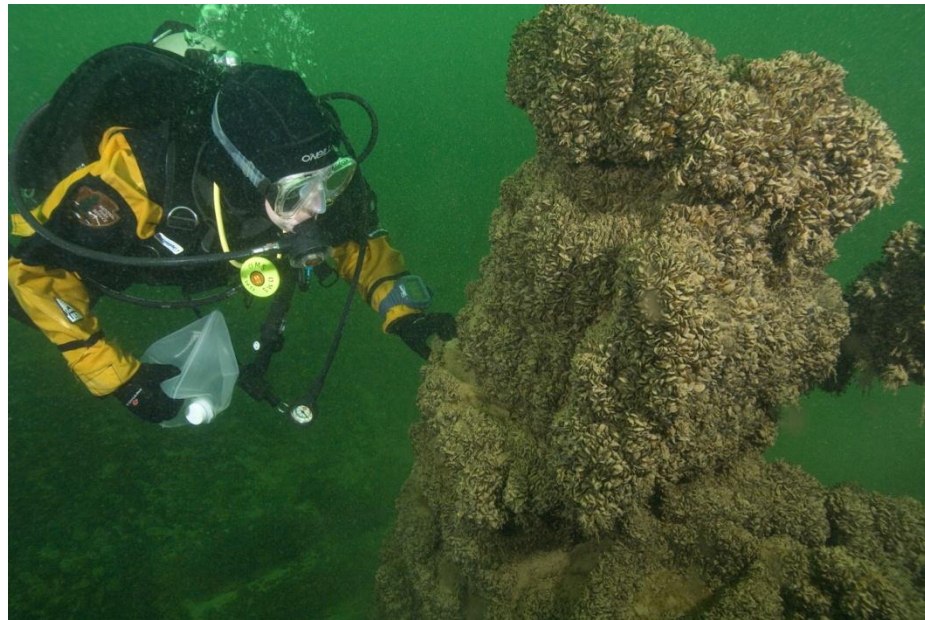
Submerged Resources Center



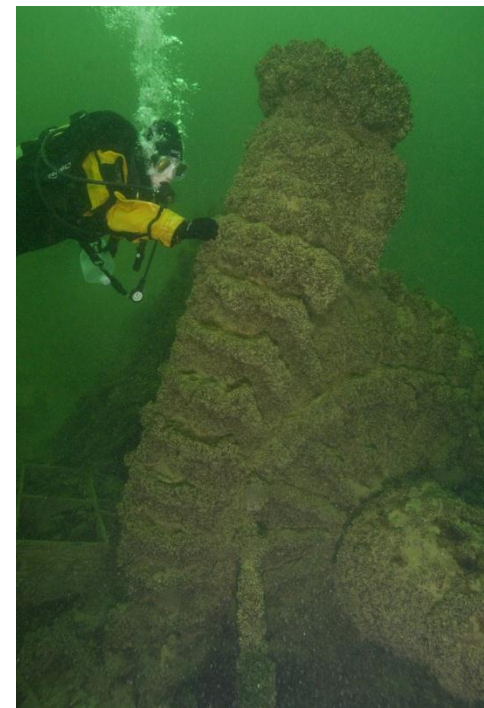
Quagga Mussels Carpet the Gold Dredge Machinery, Obscuring Detail



Gold Dredge Engine



Pump Outlet Pipe



Dredge Pump

National Park Service

Submerged Resources Center



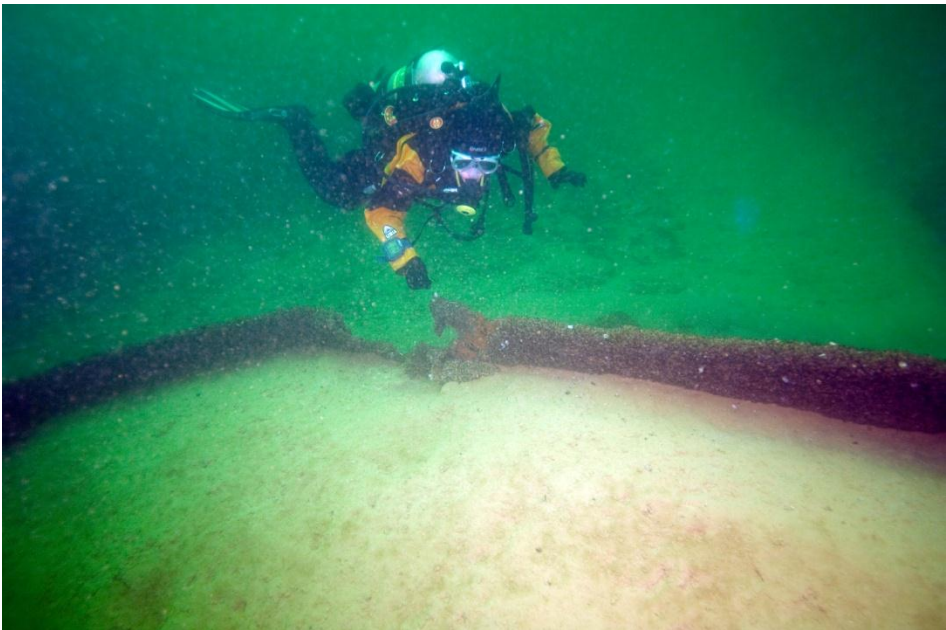
EXPERIENCE
YOUR
AMERICA



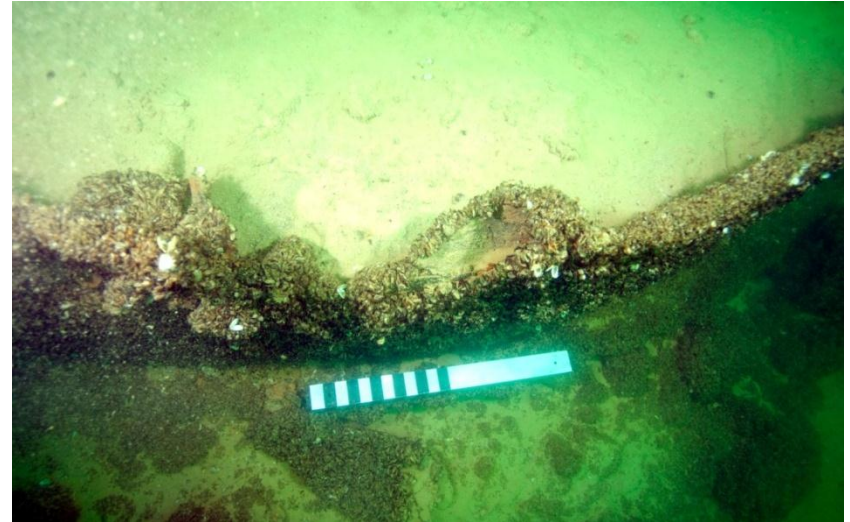
Substrate of B-29 Bomber Aluminum Alloy Exhibiting Damage from Quagga Attachment

National Park Service

Submerged Resources Center



Cyanide Processing Facility: Damage from Weight of Quaggas Pulling Apart Fragile Steel



Tank Prior to Full Collapse of Damaged Section in May 2008 (above) and After Collapse in December 2008 (below)



National Park Service

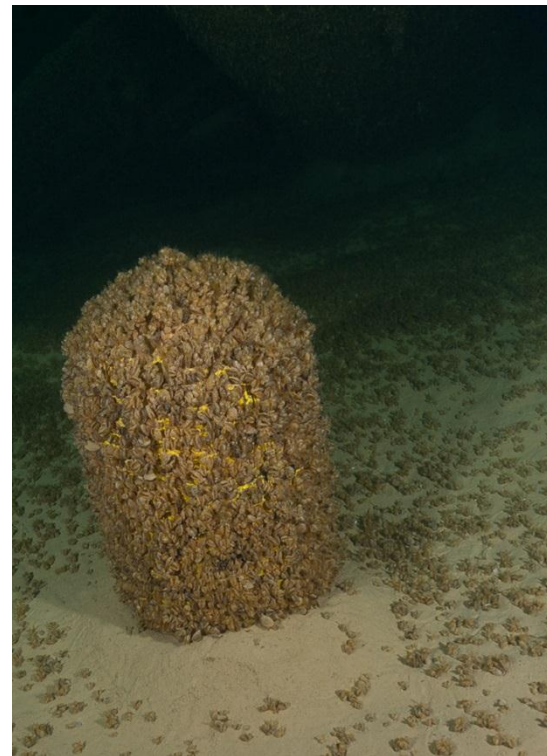
Submerged Resources Center



EXPERIENCE
YOUR
AMERICA

National Park Service

Submerged Resources Center



B-29 Oxygen Tank- Left to Right 2007, 2009, 2014

National Park Service

Submerged Resources Center



B-29 Tail Numbers- Left to Right 2007, 2014



National Park Service

Submerged Resources Center

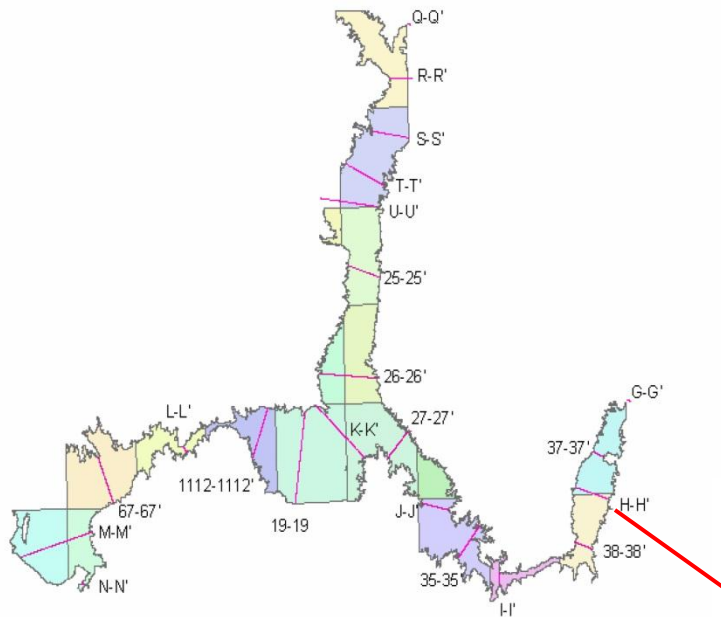


Figure 31 - Location of Lake Mead cross sections

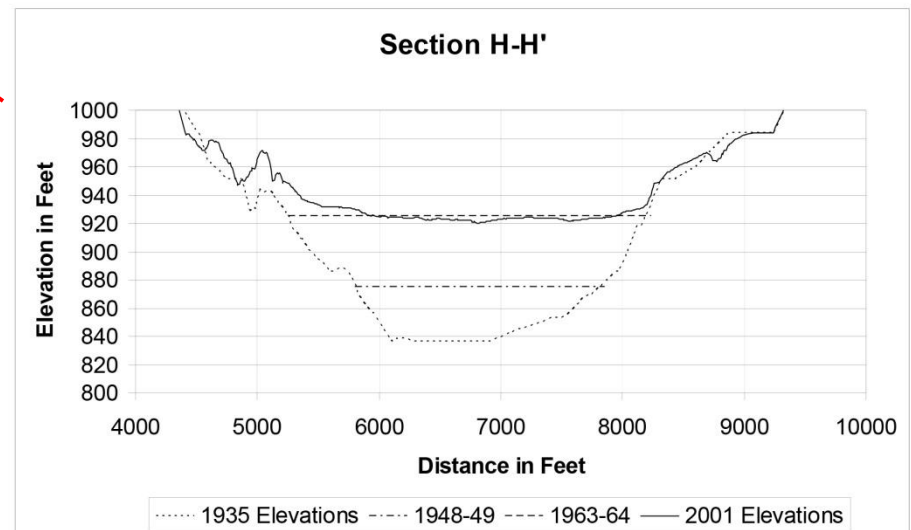


Figure 33 - Gregg Basin section H-H

National Park Service

Submerged Resources Center

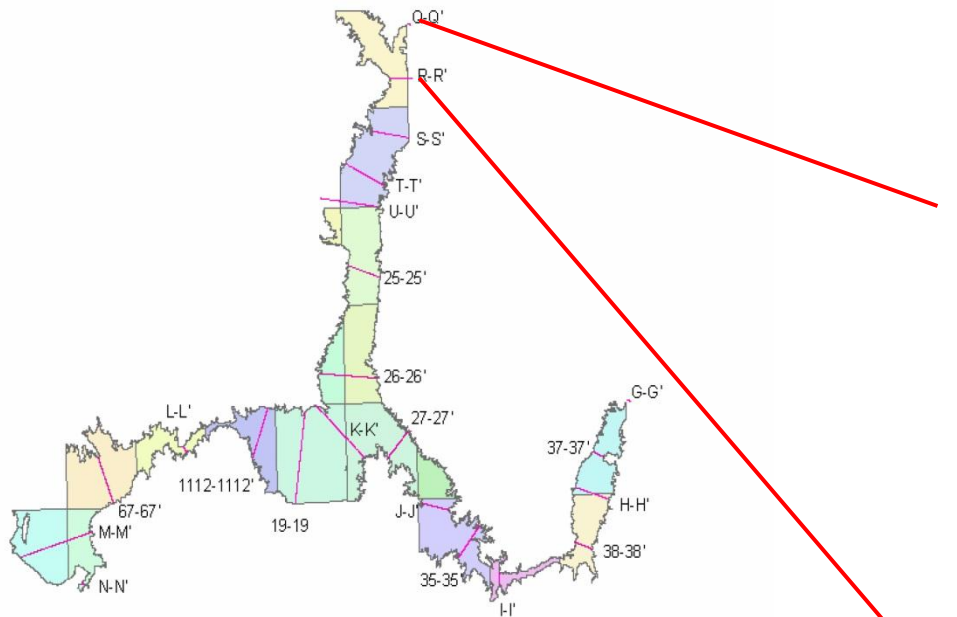


Figure 31 - Location of Lake Mead cross sections

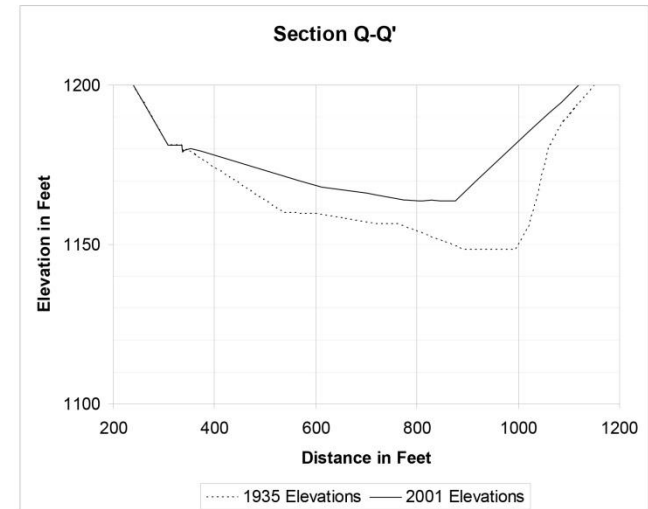


Figure 40 - Overton Arm, section Q-Q

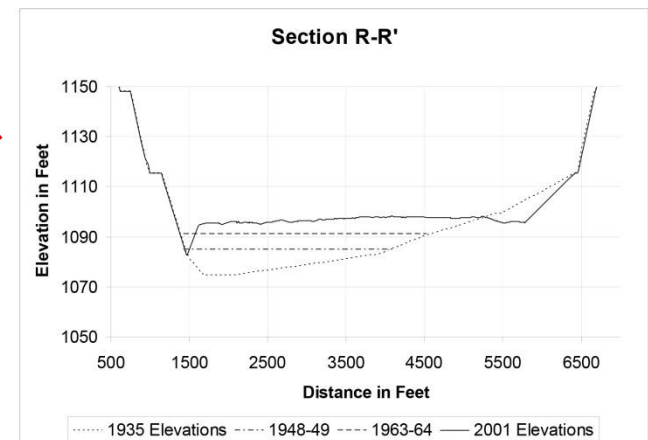


Figure 41 - Overton Arm, section R-R.

National Park Service

Submerged Resources Center

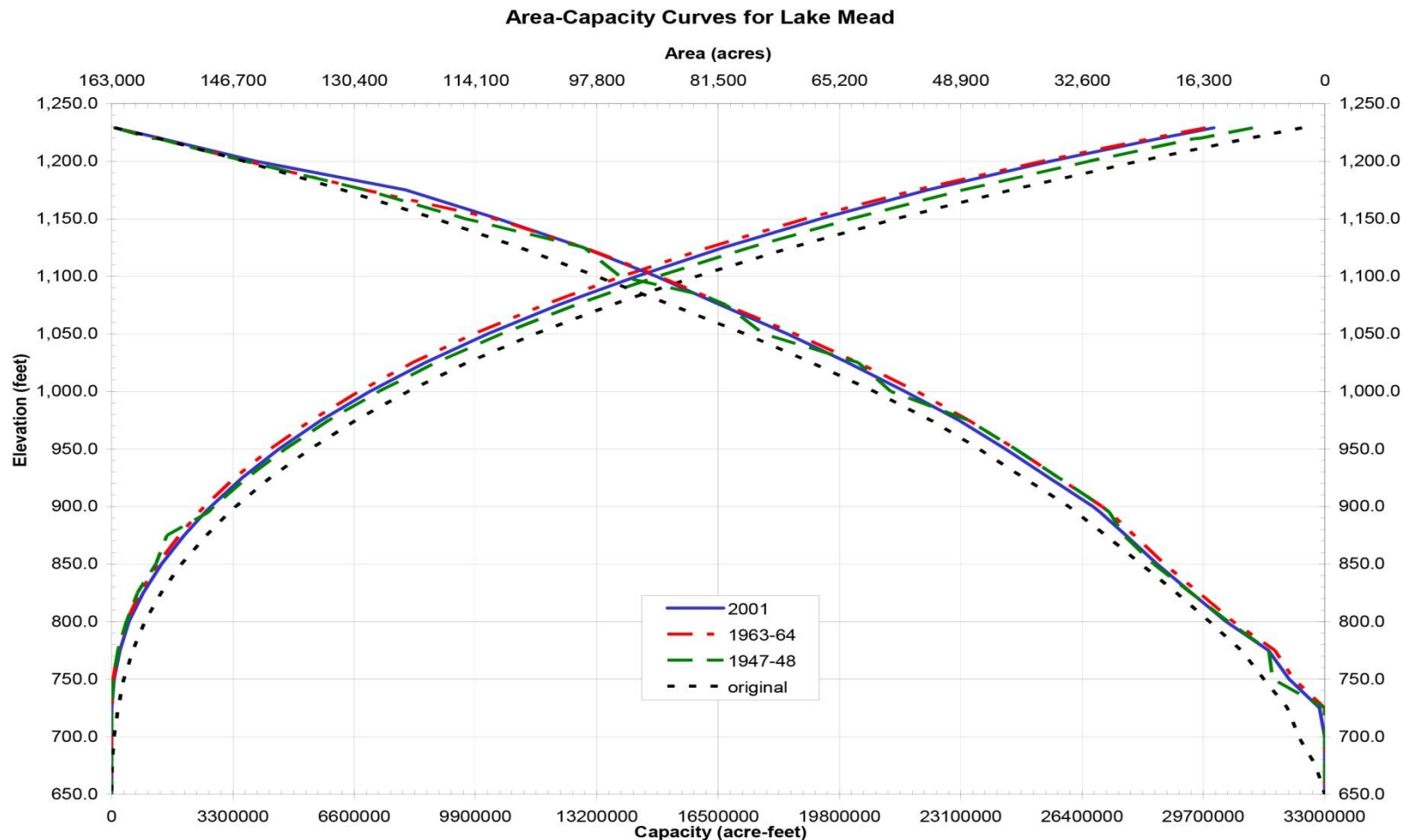


Figure 28 - Lake Mead Area and Capacity Curves.



Clarifier Tank in Use



2004



2009

The Clarifier Tank Underwater and Out of the Water Several Years Later



Chilean Mill in Lake Mohave



Rusting Iron Frame of Grinding Stone



Deterioration of Iron Hub and Surrounding Cement

National Park Service

Submerged Resources Center



Tamarisk Penetrating Walls and Foundations, Causing Cracks in Structures

National Park Service

Submerged Resources Center



EXPERIENCE
YOUR
AMERICA



Collapsed Piping in Lost City



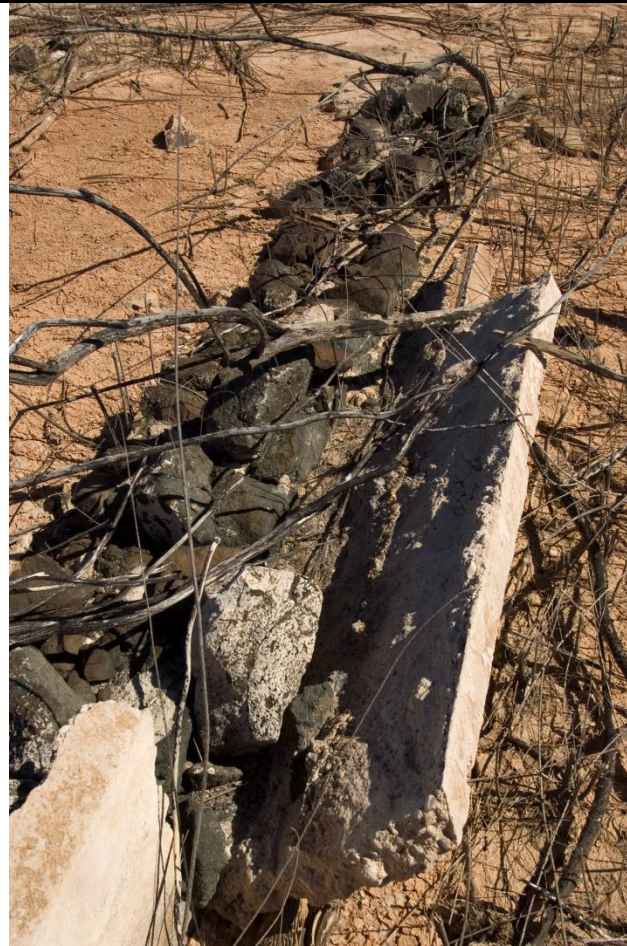
Cut to Edge of House 37 at Lost City Due to Erosion



Sherds, Bone and Lithic Material Accumulated in Gully, Flowing
Out of House 22 at Lost City

National Park Service

Submerged Resources Center



Cement Cracking and Foundation Separation at St. Thomas

National Park Service

Submerged Resources Center



EXPERIENCE
YOUR
AMERICA



Destruction of Anasazi Walls from Wave Action



Graffiti on a Structure that Periodically Emerges from the Water



A Visitor Camp Fire on the Remains of the
Chilean Mill

National Park Service

Submerged Resources Center



EXPERIENCE
YOUR
AMERICA

Questions?

Dave Conlin

Archeologist/Chief

National Park Service Submerged Resources Center

Dave_Conlin@NPS.gov

303 969-2665

Thank You